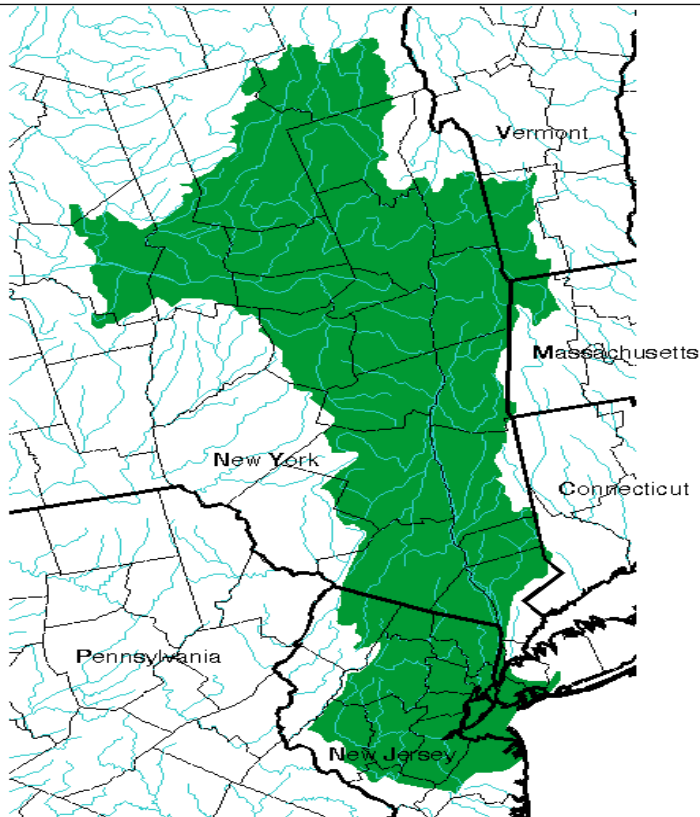



US EPA ARCHIVE DOCUMENT

# Industrial Ecology, Pollution Prevention and the NY/NJ Harbor



## NY/NJ Harbor

Scale: approximately 1:2,262,450  
Sources: NOAA, ARCUSA  
October 31, 1995  
Map MR00037-7

 EPA  
Office of Wetlands, Oceans  
& Watersheds



## US EPA Meeting of the Collaborative Science & Technology Network for Innovation

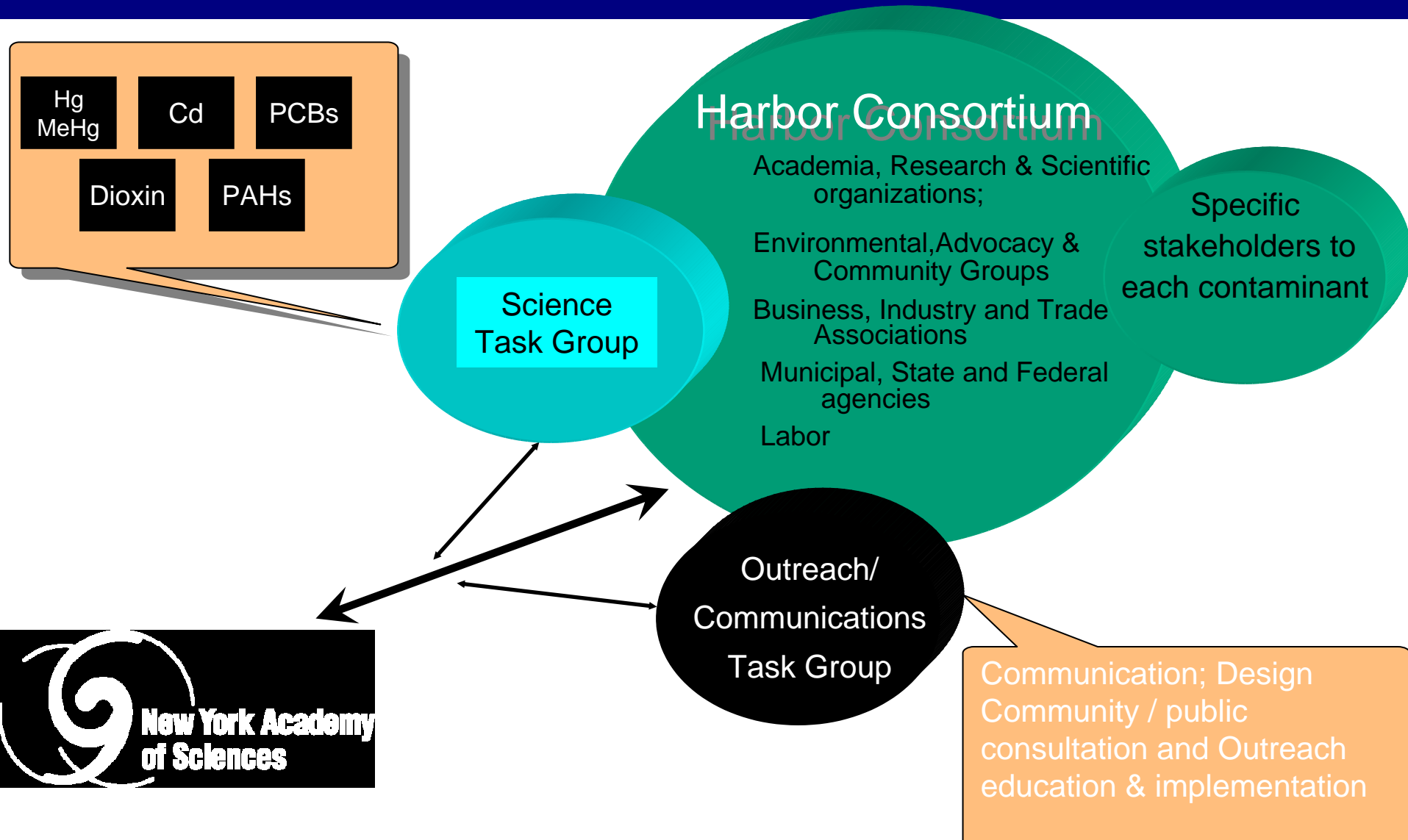
Washington D.C.  
December 5th, 2006

Sandra Valle, NYAS

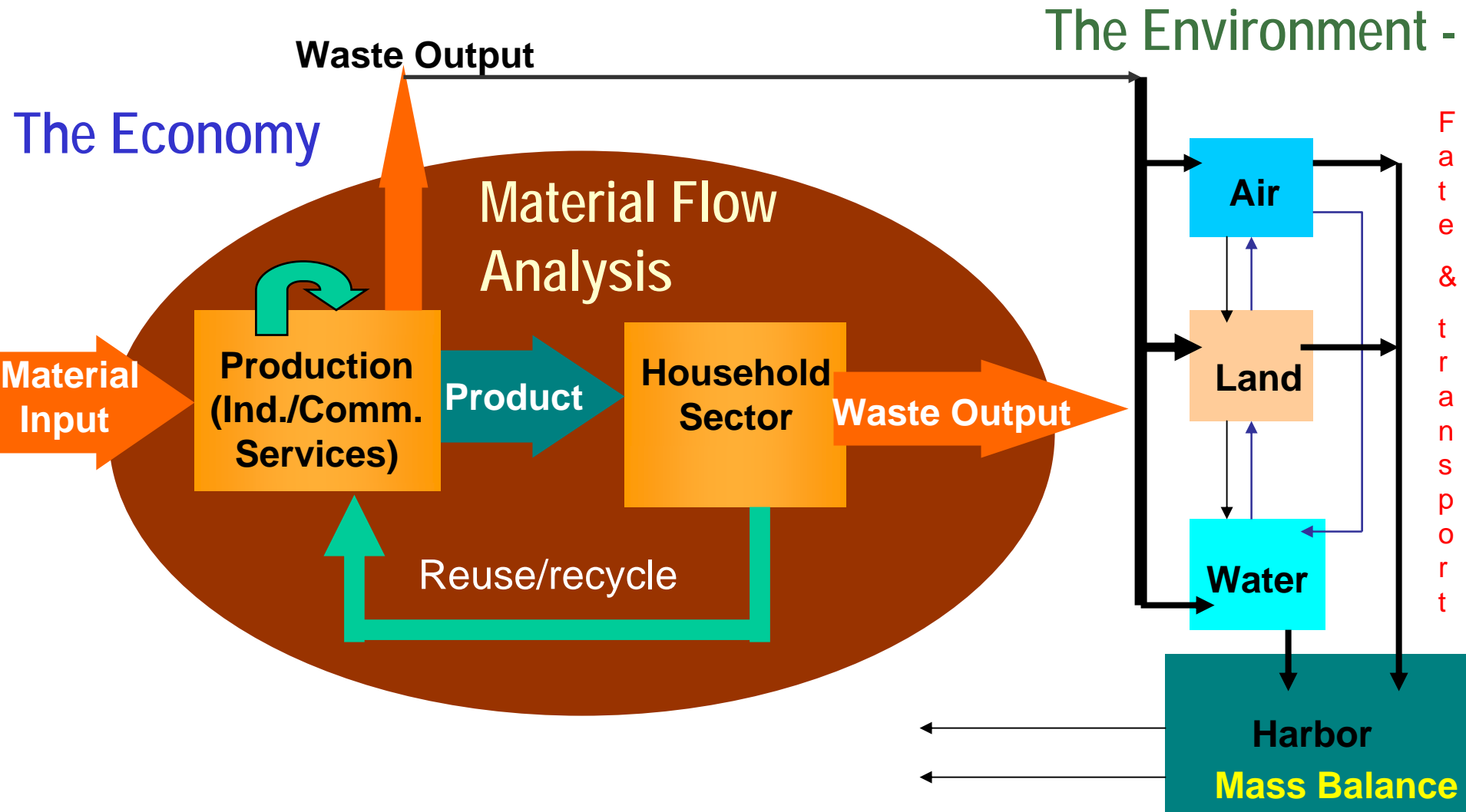


# Overview of the Project Organization:

How can diverse parties make proactive decisions together



# Systems overview of the project modeling



# Project's contribution to sustainability

The goals of the Harbor Project are to reduce the flow of contaminants through the economy and the environment.

The project contributes to sustainability by:

- Promoting ecosystem management and integrity of the harbor
- Providing the foundation (research, scientific findings, stakeholder involvement) to develop policy recommendations that address negative environmental impacts in the harbor region.
- Working with industries, small businesses and trade associations to promote clean production practices
- Engaging consumers to increase their awareness of contaminants in certain products, and to promote their substitution or proper use and disposal.

# Surprising results or "lessons learned"

**Surprising finding:** Using a Material Flow Analysis approach helped us identify all sources of each contaminant to the harbor, including the cumulative impact of small quantity generators; for example:

- Dental facilities using Hg (8,5000) turned out to be significant contributors of Hg to the harbor.
- PCB small capacitors in household appliances and demolition debris enter the municipal solid waste stream each year. It is estimated that 60-70 Metric Tons of PCBs in small capacitors are likely to be disposed of within the next 5-10 years in our region.

## **Surprising results:** Hg Switches in Cars

- Together with the Clean Car Campaign and other partners, we engaged representatives from the car manufacturing industry in our Hg research. They promised in 2002 to stop installing Hg switches in vehicles starting in 2004, and most have complied 100% (some still in anti-lock breaks).
- We also engaged a major secondary recycler and auto dismantlers. They lobbied NJ DEP to request a bounty for Hg switches removed. Car manufacturers now contribute to a fund that pays for each switch removed / recycled.

# Collaborations & Partners

Over the past year we have involved new “sectors” to guide our research and develop P2 strategies:

- Coal Tar-, and Asphalt-base Parking Lot Sealants:
  - Industry association, Local sealant manufacturers, Federal and city agencies, and Scientists.
- Creosote and PCP Treated Wood:
  - Industry association, Federal and Canadian environmental agencies, and Scientist.
- Open burning:
  - Agri Business, Town representatives, Legislators, Community representatives.

## Partnerships:

- Coast Guard Auxiliary – to work at private marinas to educate the public about proper disposal of used motor oil
- Partnered with the Association of Environmental Commissioners of NJ; the NYC Soil and Conservation District; the Council on the Environment of NYC, and Future City, Inc. to work with local communities, auto body shops and DIY to promote proper disposal of used motor oil.
- Partnered with 15 local communities to disseminate information on BMPs and how to recycle certain products

# Next Steps

- **Synthesis Report – 2007**

- Based on lessons learned to date describe how an industrial ecology approach within a collaborative watershed-based consortium can achieve real environmental outcomes
- Consortium has expressed interest in the development of this document in order to facilitate the sharing of lessons learned from the IE process.

- **Objectives**

- Compare and Contrast the industrial ecology case studies completed
- Integrate the five studies and include suspended solids research
- Better understand the inherent opportunities and barriers to implementing P2 strategies in NY/NJ watershed
- Describe the fundamental steps, data, and necessary conditions to apply an industrial ecology assessment within a watershed
- Describe important considerations when pursuing science within a collaborative multi-stakeholder Consortium

- **Outputs**

- Report
- Workshop



# How the CNS funding and program helped

- The obvious: funding! This can not be overemphasized
- Funding has supported research and outreach activities on PCBs, Dioxins and PAHs
- The CNS website is an important resource:
  - Understand what others parties are doing and how we may be able to collaborate in the future
  - Networking

# Feedback

- How can the findings of the Harbor Project be utilized by agencies, and other grantees?
- How should these findings be shared/ presented, to increase opportunities for collaborations with other parties?
- Next year we will be developing a synthesis of our work on five pollutants over the past six years. What kind of information would other parties like to see included?